Contact and Commissioning Details

Installer Contact Name and Address :	Model N° :
	Serial N° :
	Date Installed :

GUARANTEE

Terms and Conditions for UK (outside UK contact your local distributor)

We, Applied Energy Products Limited, guarantee this product **for domestic use only,** for the period of 24 months* from the date of purchase.

* Months 13 to 24 of your free guarantee are conditional on the registration of your product at the time of purchase. Product registration helps us to identify when products are installed, and in what location, in order to facilitate a more efficient response to your requests.

If the shower is not working properly when it is first used, please contact your installer. They will check that the system set up is correct and that the shower has been satisfactorily commissioned.

During the period of guarantee, in the unlikely event of a product break-down due to faulty workmanship or material defects the product should be returned to Applied Energy Products Ltd for repair on condition that:-

a) The appliance has been correctly installed in accordance with our instructions and is being used on the supply circuit or voltage printed on the rating plate.
b) The appliance has been used in accordance with these instructions and has not been tampered with or otherwise been subject to misuse, neglect or accident.
c) The appliance has not been taken apart, modified or repaired except by a person authorised by us.
d) Evidence of the date of purchase in the form of an invoice or receipt will be required in order to qualify for an in-guarantee repair.
e) Repair under guarantee has no effect on the expiry date. The guarantee on any exchanged parts or product ends when the original guarantee period ends.

EXCLUSIONS

This guarantee **DOES NOT** cover damage or defects arising from poor or incorrect installation, improper use or lack of maintenance, including build up of limescale. Checking and cleaning of the inlet filters is not covered by this guarantee. It is the responsibility of the installer to check that the installation parameters meet the requirements of the product, and any relevant regulations.

We make no guarantees as to repair times.

The guarantee applies to a repair or replacement (at our discretion) of the product subject to the conditions above, and **DOES NOT** cover compensation for the loss of the product or consequential loss of any kind including the removal, refitting and transportation of the product under any within guarantee repair.

This guarantee applies to the base unit and remote control only and not to other parts of the installation or product such as: Pressure relief devices, sprayheads, hoses, accessories, isolating switches, batteries, electrical cable and/or circuit breakers.

This guarantee does not affect your statutory rights.

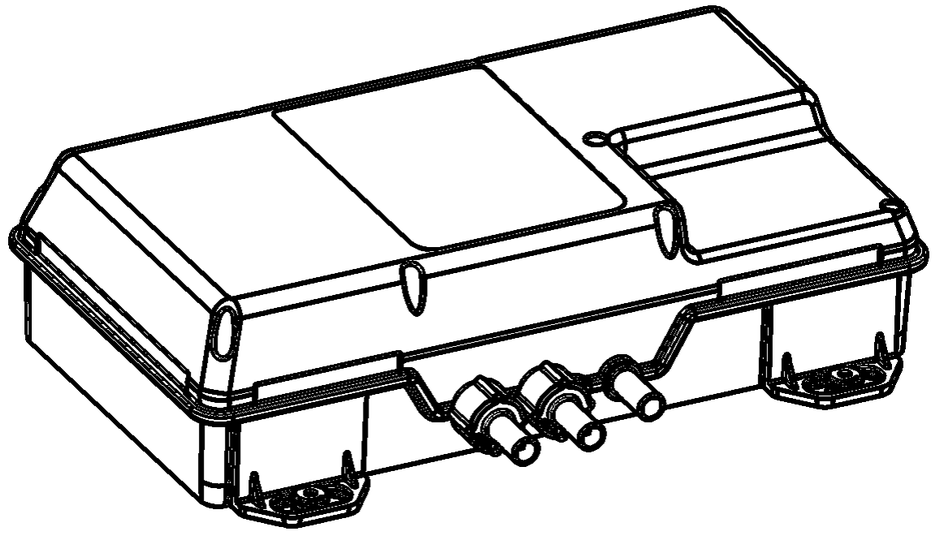
Applied Energy Products Ltd. Morley Way, Peterborough. PE2 9JJ.
Telephone 01733 456789
Fax 01733 310606
www.applied-energy.com

(A3) 567 2194 40D

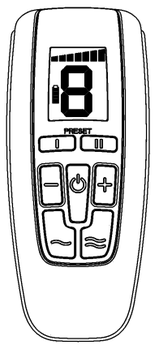
Creda

Installation and User Guide

Please leave this guide with the end user (for future reference)



Models
Pumped
Non pumped



Thermostatic Digital Mixer Shower

Electronic Remote Control Mixer Shower

This Handbook is for the Installer and User

You must read these instructions prior to installing and commissioning the mixer shower

Note to Installer : **For the benefit of the customer please complete :**
Your contact details and commissioning information on Page 20.

Mixer Shower Handbook

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Symbols

Paragraphs marked with this symbol contain important information and recommendations, particularly as regards safety.

Refers to actions that must not be performed.

Danger of high voltage. The installer should carry out the action according to the instructions.

Symptom	Cause	Remedy
FLOW :		
• Pulsating water flow	• Solenoid filter blocked	• Remove and replace solenoid valve (See Spares Page 19)
	• Air lock in pipes	• Bleed air from system (See P 9)
• No water flow	• Solenoid coil failure	• Remove and replace solenoid valve (See Spares Page 19)
DISPLAY :		
• Numeral keeps flashing	• Hot water tank has run out of water due to heavy demand	• Wait for heat to recover
	• Mixing chamber calibration fault	• Ensure ‘stat is adjusted to 65°C
		• Reposition thermostatic cartridge (Tel 0870 9000 430 for details)
• Flow icon changes but flow does not	• Partially blocked filter	• Remove and clean filter (See Page 15)

Spares and After Sales Service

We offer a technical advisory service on the telephone to installers and other customers.

Ring 0870 9000 430 (UK Only) **Ring your local dealer (Export products)**

Some spare parts can be supplied against credit or debit cards. For details :

Ring 0870 9000 420 (UK Only) Please quote the Model N° (**On base unit**).

Description *(See Page 16)*	**Part N°**
Solenoid valve	93 594750
Stepper motor assembly	93 594751
Mixer valve assembly	93 594752
Motor and pump assembly	93 594753
Flow valve assembly	93 594754
Pumped base unit PCB	93 594755
Non pumped base unit PCB	93 594756
Filtered isolation valve (ancillary)	83 595326

Description *(See Page 16)*	**Part N°**
Remote control (3 Program buttons)	93 594758
Remote control (2 Program buttons)	93 594759
Battery cover and screws	93 594761
Base unit front cover	93 594763
Remote control wall bracket	93 594764
Inlet connection c/w filter	93 594766
Outlet connector + thermistor assy	93 594767

Trouble shooting

a) Self Help (Consumer and Installer)

Symptom	Cause	Remedy
START : • Unit does not switch on or remote control switches off after 10 seconds.	• Base unit power supply not switched on • Batteries flat / polarity wrong • Remote not synchronised with the base • Remote not working • Remote too far away from base unit	• Make sure main supply is on • Replace / check batteries • Reset and synchronise handset (See Page 10) • Replace remote handset • Make sure the remote is within 10 m range of base unit
TEMPERATURE : • Outlet is too cold • Outlet is too hot	• Temperature selection low • Water storage tank run out of hot water • Temperature selection high	• Press warmer button • Wait for hot water tank to recover heat • Press cooler button
FLOW : • Poor flow from shower handset • Pulsating water flow • Base unit makes a whizzing noise, flow is low or stopped	• Blocked or scaled handset • Kinked hose • Isolation valve partially closed • Filter blocked in base unit • Air lock in pipes • Cold or hot water supply has failed	• Clean handset (See Page 15) • Replace damaged hose • Fully open isolation valves • Remove and clean filter (See Page 15) • Bleed air from system (See P 9) • Make sure water supplies are on. Check for air in system
DISPLAY : • Numeral keeps flashing • Flow icon changes but flow does not • Temperature cannot be adjusted above Digit 5 • Flow buttons do not work and stays on 5 bars • Flow does not go above 3 bars	• Base unit cannot get up to the selected temperature • Some non pumped systems can restrict flow rates • Partially blocked filter • Remote control DIP 2 is Off • Remote control DIP 4 is Off • Remote control DIP 3 is Off	• Check water tank temperature is above 50°C • Some flow settings will be the same as others • Remove and clean filter (See Page 15) • Check required settings of DIP switches. Change if necessary • Change DIP if necessary • Change DIP if necessary

b) Professional Help (Qualified Installer)

IMPORTANT : Fully isolate the electricity supply before removing the cover of the base unit.

Symptom	Cause	Remedy
START : • Unit does not switch on	• Base unit PCB not working *(No "clicking" at power up)*	• Replace base unit PCB
TEMPERATURE : • Outlet temperature constantly fluctuating • Cannot control / adjust temperature • Shower does not get up to temperature	• Restriction in pipe work • Water storage tank run out of hot water • Hot / Cold / Mix connections plumbed incorrectly • Hot water tank has run out of water due to heavy demand	• Fully open isolator valves • Wait for hot water tank to recover heat • Check water connections are correct (Page 5) • Wait for heat to recover • Ensure 'stat is adjusted to 65°C

Introduction

a) Important information

General

- The mixer shower has been designed for convenience, economy and safety of use, provided that it is installed and used in accordance with these instructions and recommendations.
- Installations that involve working "at height" (such as in a loft) must comply with the "Working at Height Regulations 2005".

Plumbing (Pumped model only)

- The pumped shower unit is designed to boost the flow of gravity fed stored domestic water and control the temperature and flow.
  DO NOT connect the base unit directly to the mains cold or mains hot water supplies.
- The water supply must have a **minimum head of 0.08m** and a **maximum head of 10m**
- **The cold water header tank should hold *at least* 115 litres (25 gallons).**
- **Make sure that none of the pipework supplying the base unit rises above the level of the bottom of the cold water cistern.**
- Avoid installing where the unit might be subject to freezing.

Plumbing (Non pumped model only)

- The non pumped shower unit is designed to mix cold and hot water from an unvented supply and control the temperature and flow.
- The water supply must have a **minimum pressure of 1 bar (100 kPa, 14 psi).**
- Avoid installing where the unit might be subject to freezing.

Electrical

- Isolate the mains electrical supply before removing the cover of the base unit.
  (In normal circumstances, the front cover does not need to be removed).
- **All wiring and installation must be supervised by a suitably qualified person.**
- **The base unit MUST be earthed.**
- The installation must be in accordance with the current edition of BS 7671 (*the "IEE Wiring Regulations"*) and "Part P" of the *"Building Regulations"* in force at the time of installation.
- Installations outside England and Wales must also conform to any local regulations in effect.
- This appliance is intended to be permanently connected to the fixed electrical wiring of the mains supply via a 5 amp switched fuse connection unit. *(Not supplied).*

Important Customer information

Pumped Model only

- The shower base unit incorporates a motor that is designed for intermittent use.
  The maximum length of time for any shower should not exceed 15 minutes.
  A rest period of 45 minutes is then required to allow the motor to cool down.

All models

- **DO NOT** switch on the appliance on if you suspect it of being frozen.

b) Product description

- The Shower is a remote controlled thermostatic mixer shower for use in domestic properties on a 220 – 240V supply. The mixer (base unit) can be installed in most locations in a house, remote from the shower cubicle with a single mixed outlet feed.
- The base unit is supplied with cold water and hot water. *(Gravity fed on Pumped model, Unvented on Non Pumped model).* The mixed outlet is controlled by a remote control used to adjust the flow and temperature.
- The remote control is fitted in the shower cubicle along with the shower hose and handset fittings.
- Additional remote controls are available as an accessory if required. *(See Page 19).*

c) Specification

Parameter	Pumped	Non Pumped
Power consumption	200 W	50 W
Minimum water pressure	0.10m	1 bar / 100kPa
Maximum water pressure	10m (1 bar / 100kPa)	5 bar / 500kPa
Base unit weight (empty)	3.9kg	2.8kg
Flow adjustment range	6 – 12 l/m *	
Voltage Supply	220 – 240 V ac	
Water connections	15 mm straight coupler	
Cold water temperature range	4 – 25 °C	
Hot water temperature range	50 – 65°C	
Mixed outlet temperature range	25 – 46°C	
Base unit dimensions W x H x D	435mm x 315mm x 120mm	
Remote control dimensions W x H x D	73mm x 170mm x 37mm	
Max. Base to Remote communication distance	10m	
Remote control weight (incl. batteries)	190g	
Water Ingress Protection (IP) Rating (base)	IPx2	
Water Ingress Protection (IP) Rating (handset)	IPx4 ø	

* Non Pumped version : Flow is guide only (Range is dependant on system supply pressures)
ø The remote control is water resistant but is not suitable for total immersion.

Installation

a) Introduction

- The remote control thermostatic mixer shower is designed for use as a mixer unit that is sited remote from the shower cubicle. The shower is controlled using a remote control handset sited inside the cubicle.
- ☞ If the installation involves working at height, ensure that the "Working at Height Regulations 2005" are followed.
  (This includes ensuring there is "Proper ladder access", that loft areas are "Boarded down on joists to and from the installation" and that there is "Adequate lighting", etc).
- The recommended installation sequence is
  1. Fix the base unit in its designated location
  2. Fix the shower outlet and remote control bracket and all accessories into the cubicle
  3. Plumb in the cold and hot water feeds to the base unit
  4. Plumb in the mixed outlet from the base to the shower outlet in the cubicle
  5. Connect the base unit mains lead to the electrical supply
  6. Commission the installation

1. Cold inlet valve	9. Base unit control PCB
2. Hot inlet valve	10. Outlet temperature sensor
3. Mixed outlet valve	11. Temperature and flow and battery charge display
4. Stepper motor for temperature adjustment	12. Programmable buttons
5. Potentiometer position sensor	13. Warmer and cooler buttons
6. Mixing chamber and valve	14. Start / Stop button
7. Pump impeller / Flow adjustment	15. Increase and reduce flow buttons
8. AC motor / Stepper motor & sensor	

- The start / stop button on the remote control communicates to the base unit PCB and switches the unit on and off using the cold and hot and outlet water valves.
  (Outlet valve is not fitted on the non-pumped version)
- The warmer and cooler buttons alter the temperature by turning the mixer valve using the stepper motor.
- The outlet temperature is measured using a sensor and displayed as a digit on the remote control display.
- The flow buttons change the flow rate by speeding up and slowing down the rotation of the pump. (On the non pumped version the flow is altered by turning a flow valve using a motor)
- Presets can be used to store favourite settings.
- The remote control display is used to show water temperature, flow rate and battery charge.

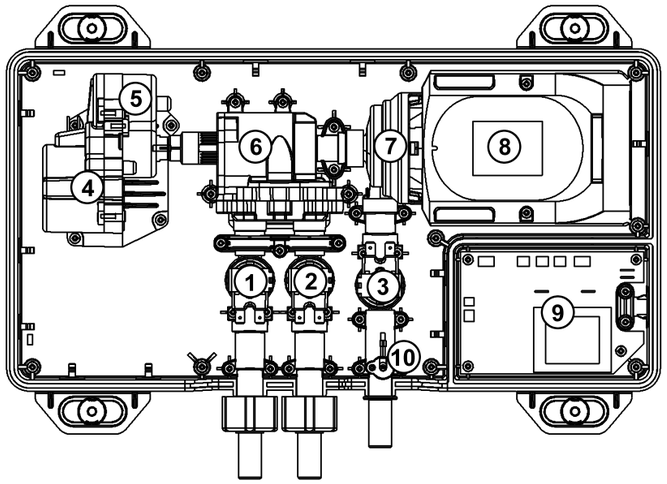
How the shower works

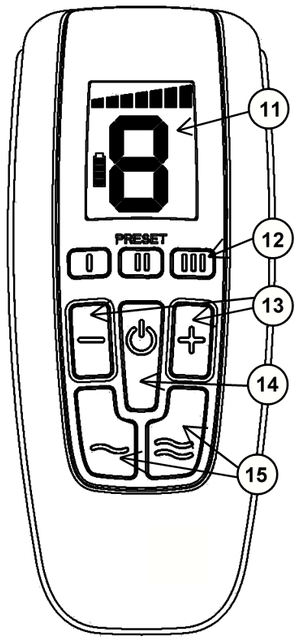
The shower is a remote controlled mixer shower incorporating a booster pump. (On the non pumped model the booster pump is replaced by a motorised flow regulator valve). It is controlled by a remote control unit that is installed in a shower cubicle along with the shower accessories.

Switch on and running

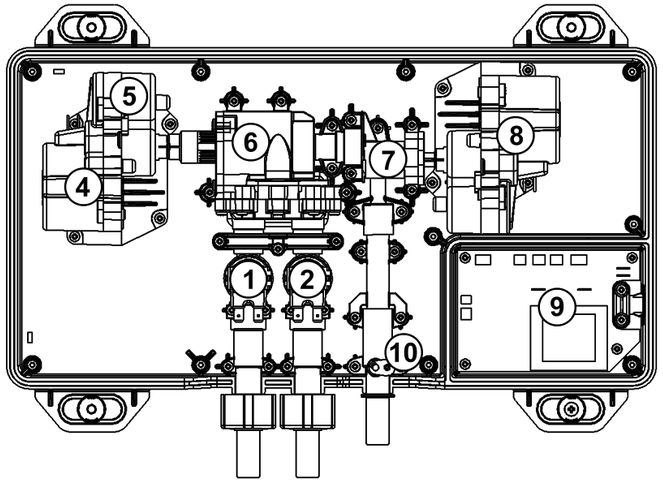
- The remote control is used to switch the base unit on and control the temperature and flow rate.
- The remote control and base unit send the instructions to each other using radio frequency signals with a maximum range of about 10 metres.

Pumped model and remote control *(3 preset version shown)*





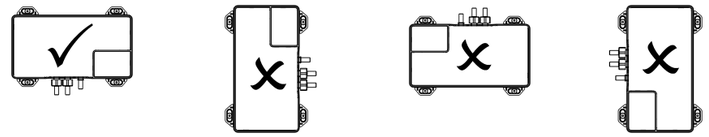
Non Pumped model



b) Locating the base unit

DO NOT install the base unit in the bathroom or shower cubicle area.
DO NOT install the base unit upside down (i.e. secured to a ceiling)

- In general the base unit can be installed above the shower cubicle in the loft or adjacent to it in an airing cupboard. *(Or other suitable location within 10m of the shower area)*
- The unit can be mounted horizontally ("on its back"), or vertically.
- When mounting vertically, the connection pipes **MUST** be pointing down.



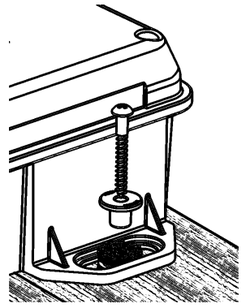
- Ensure that the location is not subject to freezing or excessive moisture.

c) Fitting and Plumbing

Mark up and fix

- Decide where to mount the base unit ensuring :
  - There is adequate clearance for access around the base unit, including connection of the hot and cold and shower delivery pipes.
  - The distance between the base unit and the shower cubicle is less than 10m.
  - There are no metal coated ceiling panels or metal partitions between the base and the shower. *(Metal panels etc. can block the remote control signals and so stop the unit working correctly)*
- Mark the four locating points for the base and then secure using the screw pack provided.

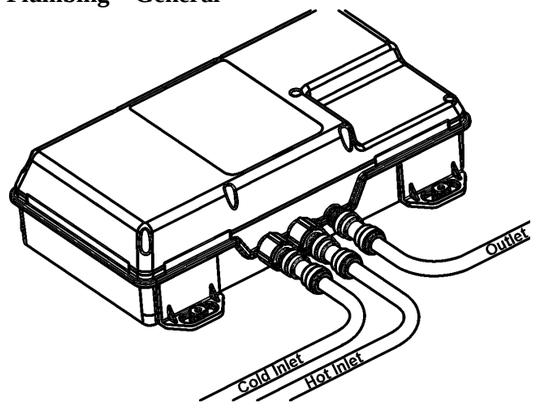
Important : In all cases, the unit must be mounted using the rubber feet and spacers supplied. Some surfaces, such as hollow walls, may require a different screw and plug type (not supplied)



Mounting feet, spacer and screws

- Once the base unit is fixed in position the plumbing connections can be attached.

Plumbing – General



- Connections are made to the unit using 15mm straight or elbow couplers (Push fit or compression). The cold and hot water connections should include service valves for ease of maintenance. *(Filtered isolation valve available as an ancillary – See Page 19)*

Cold and hot inlets, and outlet (mixed) connections.

- The cold and hot water supplies **must be flushed through** prior to making the connections to the base unit, to remove all particles from the pipe work and help with priming during commissioning.

Plumbing – Typical layouts

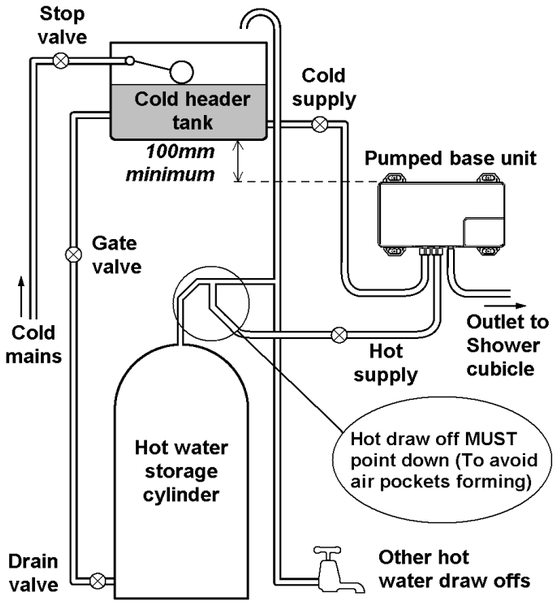
Important installation notes :

- Avoid potential air traps in the pipe runs
- For loft installations ensure that there is no risk of freezing of the pipes and the unit, but do not cover the base unit with loft insulation.
- The hot water supply to the base mixer unit must be set between 50°C - 65°C.

Low pressure (Gravity fed) systems (Pumped Model only)

Warning: Unit MUST NOT be connected to the mains water supply
(The cold and hot water MUST come from a gravity fed supply using the same header tank)

IMPORTANT: Hot water draw off connection MUST point down (as shown)
(Failure to do this may cause air to build up in the Hot pipe and stop the base unit working correctly)



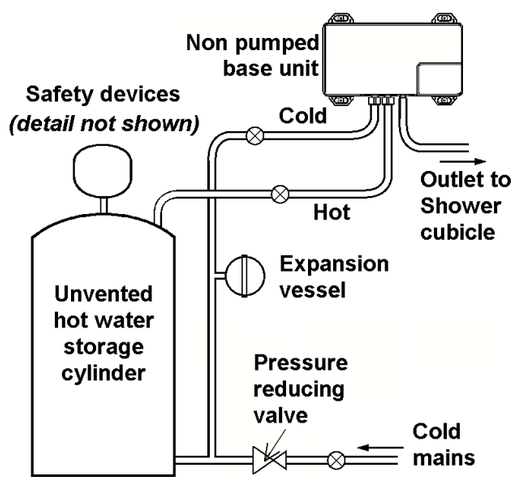
- The cold and hot water pipes to the base unit (Pumped Model only) MUST come from a gravity fed (header tank) supply providing equal pressures.

Diagram of gravity fed system

High pressure – Unvented mains fed storage (Non Pumped Model only)

- Pressure reducing valves are required if the pressure is above 5 bar.
- This plumbing scheme requires that the hot water pipe to the base unit (Non pumped model) MUST come from an un-vented stored hot water cylinder
- The cold water supply MUST come from a balanced pressurised supply.

Diagram of un-vented mains fed storage system



Maintenance

a) Cleaning the remote control and descaling the shower handset

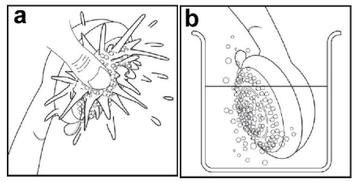
While cleaning, isolate the power supply to the base unit.

- Clean the shower remote control using a soft cloth and avoid using abrasive or solvent based cleaning fluid, especially on any plated finishes.

Warning : Never immerse the remote control in any liquid

Regularly inspect the hose for wear and damage. Replace if necessary, or every two years, with an approved part.

To maintain performance, the shower handset must be cleaned regularly.



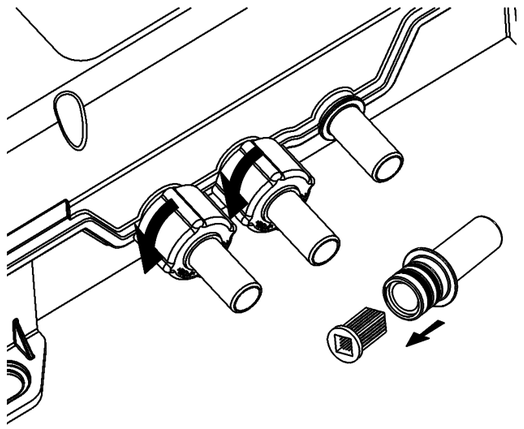
- Clean the shower handset spray by rubbing the nozzles (a).
- Alternatively soak the shower spray handset in a proprietary lime scale remover (b). *(Rinse thoroughly after cleaning).*

b) Cleaning the base unit inlet filters

If the flow rate is lower than normal, then the inlet filters may need to be cleaned.
(Separate filtered isolation valve available as an ancillary – See Page 19)

While removing and cleaning the inlet filters, isolate the power supply to the base unit.

- Turn off the cold water and hot water supply to the base unit.
- Remove the cold and hot water connections at the union with the base unit and carefully remove the filters (as shown).

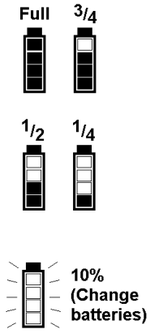


- Wash the filters thoroughly under running water.
- Replace and reassembly the cold and hot water connections.
- Turn water and electrical supplies back on again.

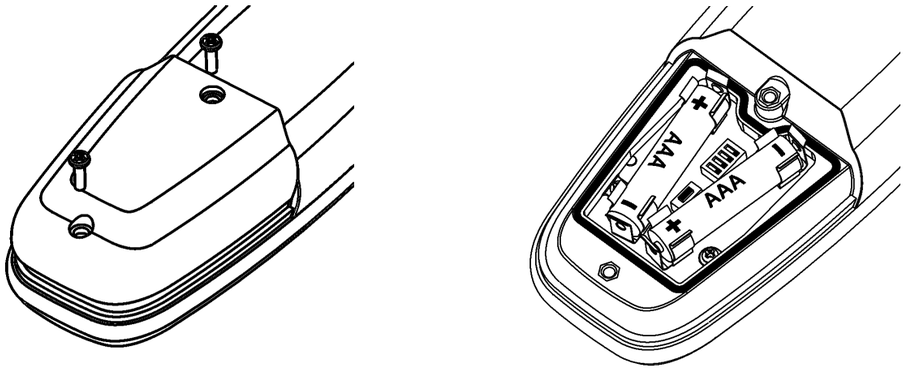
It may be necessary to re-prime the shower base unit after the filters have been cleaned. (Refer to section “Bleed the air out of the base unit” on Page 10).

e) Remote Control batteries

- When the shower is switched on, the display shows how much charge is remaining
- Replace the batteries when there is less than 10% charge remaining. Ensure polarity is correct.
- The handset uses 2 x AAA type batteries.
- Access to the battery compartment is via a cover on the rear of the remote control
- Remove the battery cover by unscrewing the two cover screws.



Remove battery cover and insert 2 x AAA batteries. (Observe polarity).

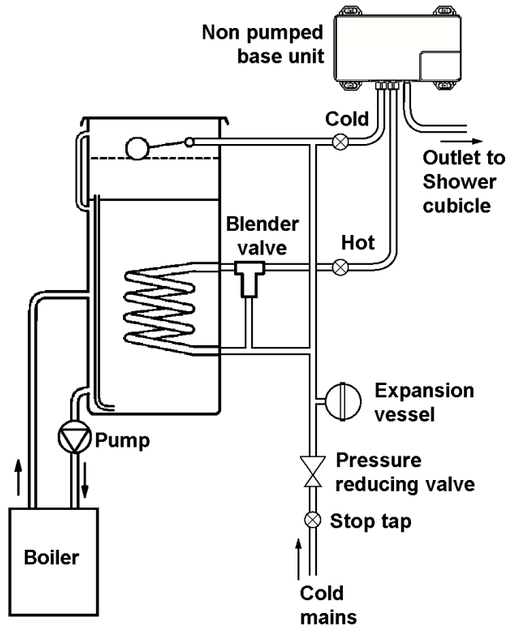


Ensure the rubber seal is correctly located before replacing the battery cover.

Additional remote control

- More than one remote control can be configured to the same base unit.
- Only one remote control will function at any one time.
  (See spares for additional remotes : Page 19)

High pressure – Unvented thermal store (Non Pumped Model only)



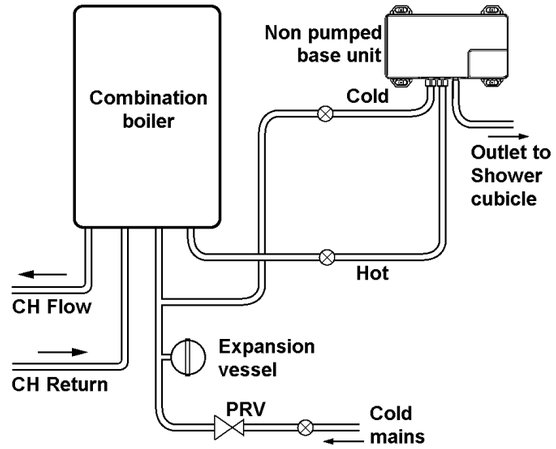
- Pressure reducing valves are required if the pressure is above 5 bar.
- This plumbing scheme requires that the hot water pipe to the base unit (Non Pumped) MUST come from the output of the thermal store.
- If required, a temperature blending valve can be fitted on the hot outlet of the thermal store.
- The cold water supply MUST come from a balanced pressurised supply.

Diagram of un-vented thermal store system

High pressure – Combi boiler (Non Pumped Model only)

- Pressure reducing valves are required if the pressure is above 5 bar.
- This plumbing scheme requires that the hot water pipe to the base unit (Non Pumped) MUST come from the output of a combi boiler.
- The cold water supply MUST come from a balanced pressurised supply.
- When a combi boiler scheme is used, DIP 4 switch (inside remote control battery compartment) MUST be set to Off.
  See "Fix the flow rate (no flow adjustment possible)" on Page 11

Diagram of un-vented combi boiler system



Shower cubicle

- The mixed outlet pipe from the base unit is connected to the shower accessories in the shower cubicle. *(See separate installation instructions supplied with the accessories)*
- Fix the remote control holder in the required position.
  (Avoid mounting the remote control in the direct spray from the shower handset)

d) Electrical connections

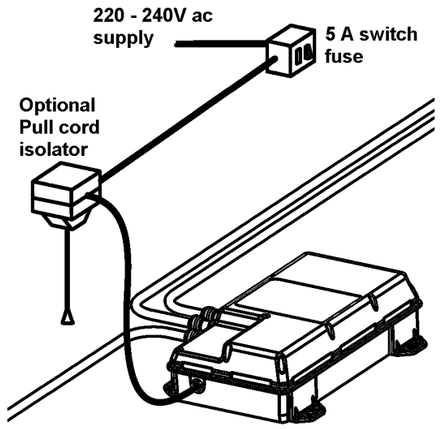
Connecting the supply cable

The base unit is provided with 2m of mains cable attached. In normal circumstances, the front cover does not need to be removed.

Warning :
- **Switch off the electricity supply to the circuit before wiring in.**
- **If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.**

Connect the cable from the base unit to a 5 amp fused connection unit :

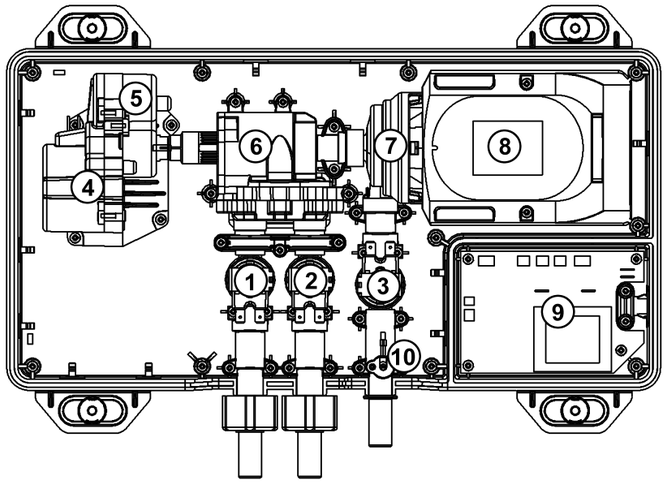
Earth cable marked	**E** ⏚	Green/yellow
Neutral cable marked	**N**	Blue
Live cable marked	**L**	Brown



WARNING:

THIS SHOWER MUST BE EARTHED
SWITCH OFF ELECTRICITY AT THE MAINS

- **All wiring and installation must be supervised by a suitably qualified person.**
- The installation must be in accordance with the current edition of BS 7671 (*the "IEE Wiring Regulations"*) and "Part P" of the *"Building Regulations"* in force at the time of installation.
- Installations outside England and Wales must also conform to any local regulations in effect.
- This appliance is intended to be permanently connected to the fixed electrical wiring of the mains supply via a 5 amp switched fuse connection unit. *(Not supplied).*
- A means for disconnection in all poles must be incorporated in the fixed wiring in accordance with the wiring rules.



Schematic of Pumped base unit (Pumped Model)

1. Cold inlet valve
2. Hot inlet valve
3. Mixed outlet valve
4. Stepper motor for temperature adjustment
5. Potentiometer position sensor
6. Mixing chamber and valve
7. Pump impeller
8. AC motor
9. Control PCB
10. Outlet temperature sensor

- Press the Flow buttons to adjust the flow rate.

There are 7 flow steps available

Flow display
The flow adjustment is from
1 segment to 7 segments

Flow Decrease	*Flow Increase*

Segments	1	2	3	4	5	6	7
Flow	Min	**à à** Flow increases **à à**					Max

Note : Installation restrictions and Combi boilers can limit the adjustment range. Flow range may be limited or fixed depending on DIP switch installation settings. (See section on DIP 3 and DIP 4 on Page 11, for information about the DIP switches)

Important: *Prolonged use of the shower may exhaust the supply of stored hot water. This will depend on the volume of the hot water tank and how long it takes to heat up again. (Not applicable to Combi boiler systems). As a guide, without any reheating, a 115 litre tank will last for about 20 minutes.*

c) Program buttons

The program buttons can be used to store up to 3 favourite settings.

How to program

- Adjust the shower to the required temperature and flow

Two program button remote

Three program button remote

- Press one of the program buttons for more than 3 seconds to store the current settings to that button *(Acknowledged by a double bleep).*

Note : Any previously saved settings will be overwritten.

Using the program buttons

- Press a program button to switch the shower to the saved settings.
- This can be done to switch the shower on, or at any time during a shower session.

Note : A button must be programmed before it will function.

d) Overtemperature protection

The shower has an over temperature protection built in.

- If the outlet temperature is higher than it should be, the base mixer unit will automatically shut off the hot water supply until the temperature returns to normal.
- The remote control will flash "E" and the bleeper will sound an alarm.
- The shower can still be switched off while the over temperature protection is working.

User Instructions

Warning

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

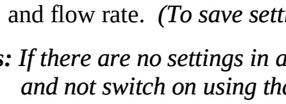
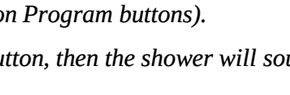
Children should be supervised to ensure that they do not play with the appliance.

Important

- Ensure that there is no standing water in the shower tray or bath when the remote control is in use. *(The remote control is protected against water spray but IS NOT protected against immersion).*

a) Switching the shower on and off

- The shower is switched on and off by pressing the Start / Stop button
  - Pressing the start button will switch the shower on. The selected temperature is shown in the display when the button is first pressed.
  - The temperature display will flash and gradually climb up to the selected temperature.
    (When the temperature is reached, the digit will stop flashing and the handset will bleep twice, with the backlight coming on for 2 seconds).
  - The display will also show the flow rate level.
- The shower can also be switched on using one of the preset programmable buttons (2 or 3 buttons depending on model).

Two program button remote	Three program button remote
	

  - Press one of the Program buttons to switch the shower on at a previously saved temperature and flow rate. *(To save settings : See section on Program buttons).*

Notes: *If there are no settings in a Programmable button, then the shower will sound a long bleep and not switch on using that button.*

If a program button conflicts with the requirements of the DIP switches then the button will be ignored and the handset will sound a long "error" bleep.
(See section "Adjusting the remote control" on Page 11, for information about the DIP switches).

b) Adjusting the temperature and flow

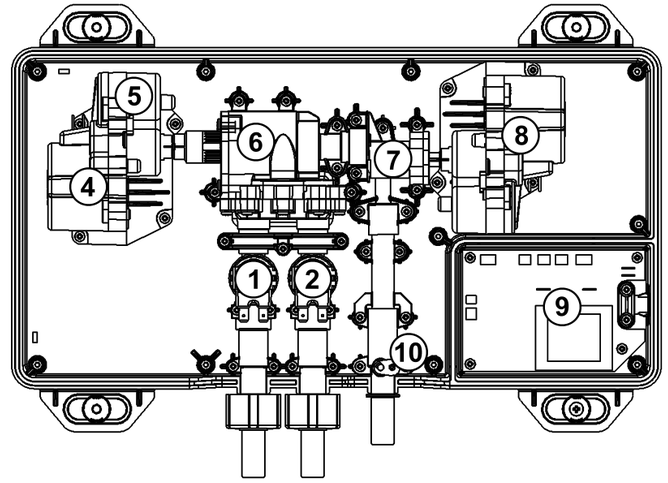
- Press the Temperature buttons to adjust the temperature.

The temperature adjustment is from
L (low), then 1 to 9, then H (high)

Temp Decrease	*Temp Increase*

Display	L	1	2	3	4	5	6	7	8	9	H
Temperature	Approx 25°C	à à Range increases from approx 34°C to approx 44°C à à									Approx 46°C

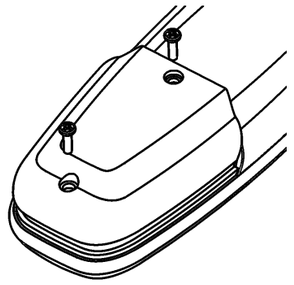
Note : Temperature adjustment range may be limited to 1 - 5
(See section "Restrict range of adjustment of Temperature buttons" on Page 11)
Temporary over-ride : Press Warmer and Cooler buttons together for more than 2 seconds.



Schematic of Non Pumped base unit (Non Pumped Model)

1. Cold inlet valve
2. Hot inlet valve
4. Stepper motor for temperature adjustment
5. Potentiometer position sensor
6. Mixing chamber and valve
7. Flow adjustment
8. Stepper motor / Sensor
9. Control PCB
10. Outlet temperature sensor

- Insert the 2 x AAA batteries (supplied) into the remote control battery compartment



Remove battery cover and insert 2 x AAA batteries. (Observe polarity).

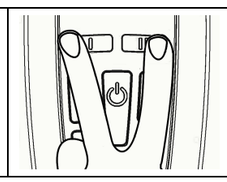
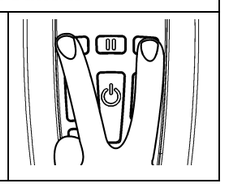
e) Commissioning the system

Make sure cold and hot water supplies are both turned on and primed.
(To prime, it may be necessary to temporarily partially loosen the cold and hot connections, in turn)
Make sure remote control handset has its batteries installed

Switch on the power supply to the base unit. *(In the first 10 seconds of powering up, the base unit carries out a self check routine. During this time the internal electrical components will momentarily switch on and off).*

Bleed the air out of the base unit

- Before the unit can function correctly the air must be bled from the base unit and associated pipes
- To bleed the air from the Pumped base unit :
  - Make sure the cold and hot delivery pipes are primed prior to connection. *(See above)*
  - Make sure the power to the base unit has been on for LESS than 5 minutes.

Remotes with 2 program buttons		Remotes with 3 program buttons	
Press P1 and P2 together for at least 3 seconds.		Press P1 and P3 together for at least 3 seconds.	

- "C" will appear on the remote control and the shower will automatically bleed out any air.

- The automatic bleed process takes 2 minutes to complete. During this time the internal pump will switch on twice for about 10 seconds and water should come out of the shower handset.
- If water does not flow from the shower at the end of the bleed process, then press the program buttons again, as shown, for 3 seconds.
- After 2 minutes the unit automatically switches off.

Once started, the bleed process can be stopped at any time by pressing the Start / Stop button.

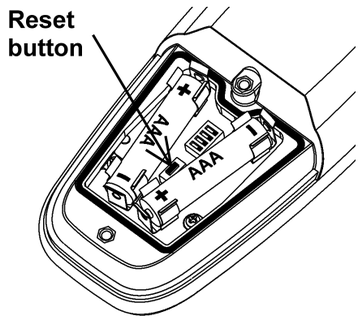
- To bleed the air from the Non Pumped base unit :
  - Make sure the cold and hot delivery pipes are primed prior to connection. *(See above)*
  - Make sure the power to the base unit has been on for LESS than 5 minutes.
  - Press the Start / Stop button. This will switch the unit on and also bleed any trapped air

Notes :

a) Pressing the two Program buttons is used to bleed the air from a Pumped unit. On a Non Pumped unit these two buttons will have no effect. (Use the Start / Stop button instead).

b) The bleed process must be started in the first 5 minutes of switching on the power to the base unit. Switch the power off and on again if it has been on for more than 5 minutes.

Synchronise the remote control to the base unit

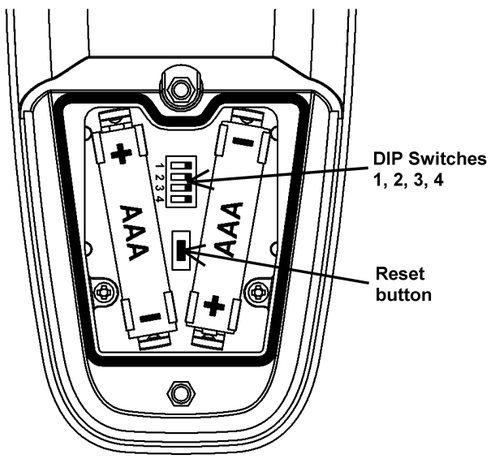


The remote control leaves the factory "unsynchronised". It automatically synchronises to its base unit when the buttons are pressed to bleed out the air *(see above)*.

If the buttons have no effect then the remote control can be reset and "resynchronised" to the base as follows.

- Turn off the power supply to the base unit.
- Remove batteries from the remote and then put them back again
- Leave the battery cover off
- Press the start button and then turn the remote over and press the "Reset" button (use a biro or similar) for at least 3 seconds. *(The remote will automatically switch off after 10 s. If the Reset has not been done in this time, then press the Start button again).*
- The remote will give a series of long and short bleeps to acknowledge the reset.
- Replace the battery cover, including the fixing screws.
- Switch on the power supply to the base unit and carry out the bleed process as described above.

Adjusting the remote control



Inside the battery compartment are 4 small "DIP" switches that are used to set various features on the shower. Use these DIP switches to set the following features on the shower.

DIP 1 : Automatic switch off

(The shower will automatically switch off if no buttons are pressed for a pre-set time)

Use **DIP switch 1** to set how long before the shower automatically switches off
ON = 20 minutes
OFF = 10 minutes

DIP 2 : Restrict range of adjustment of Temperature buttons

(The temperature can be restricted to a range that is suitable for less abled users)

Use **DIP switch 2** to set a restriction on the temperature adjustment range
ON = Temperature can be fully adjusted between **L** (approx 25°C) and **H** (approx 46°C)
OFF = Temperature adjustment is restricted between **1** (approx 34°C) and **5** (approx 40°C)

DIP 3 : Stop the water flow being adjusted to maximum setting

(Flow can be limited to about half its maximum setting, used for saving water and energy)

Use **DIP switch 3** to stop the flow buttons from adjustment to its maximum value.
ON = Full flow adjustment, minimum to maximum (approx 6 to 12 litres per minute)
OFF = Flow cannot be adjusted above about 7 litres a minute.

DIP 4 : Fix the flow rate (no flow adjustment possible)

(The flow rate can be fixed with the flow buttons unable to adjust the flow)
This switch MUST be set to Off when the plumbing scheme uses a combi boiler (See Page 7)

Use **DIP switch 4** to fix the flow rate to about ¾ of maximum (approx 9 litres per minute).
ON = Full flow adjustment (approx 6 to 12 litres per minute) *(Unless DIP 3 is set to OFF)*
OFF = Flow rate is always set to about ¾ of maximum *(and DIP 3 is automatically disabled)*